

REMARKS

As we discussed over the telephone on September 1, 2004, we have received a copy of the IDS (PTO-1449), which the Examiner had considered. However, the Examiner has failed to initial one of the references, namely "WO97/21294." The Applicant would appreciate if the Examiner will enclose a revised IDS form in the next Office Action to reflect his consideration of the above reference.

The Examiner has rejected claims 1, 9, 13 and 21 under 35 U.S.C. §102(e) as being anticipated by the Wan et al. reference. The Examiner has rejected claims 12 and 24 under 35 U.S.C. §102(e) as being anticipated by the Li reference. Lastly, the Examiner has rejected claims 2 through 8, 10, 11, 14 through 20, 22 and 23 under 35 U.S.C. §103 as being obvious over the Wan et al. reference in view of the Huang et al. reference. In view of the following remarks, the Applicant respectfully requests the Examiner to reconsider the pending rejections.

The Section 102 Rejections

For the rejection of independent claims 1, 9, 13 and 21, the Examiner has pointed out that the Wan et al. reference discloses "a radio resource controller" at lines 48-50, column 9 and by the element 206 in FIGURE 4, "a data rate controller" at lines 54-61, column 9 and by the element 150 in FIGURE 4 and "a data distributor" at lines 61-63, column 9 and by the element 210 in FIGURE 4. The above characterization appears to be improper for anticipation for the following reasons.

As explicitly recited in independent claim 1, the base station controller includes "a radio resource controller ...maintain[s] a plurality of links between the mobile station and each of the base stations . . . [and] separate information indicative of communication quality of each of the links." [emphasis added.] Independent claim 1 also each explicitly

recites “a link controller ... for determining a data rate for each of the links . . .” as well as “a data distributor . . . for distributing communication data among the links” Independent claims 9, 13 and 21 also each recite substantially identical subject matter limitations. In independent claim 9, the above quoted elements are located in the mobile station rather than in the base station controller. In independent claim 13, steps are explicitly recited to controlling a plurality of base stations that is communicating with the mobile station. In independent claim 21, steps are explicitly recited to controlling a plurality of base stations at the mobile station. In summary, the current invention as explicitly recited in independent claims 1, 9, 13 and 21 calls for the maintenance of “a plurality of links” between the mobile station and each of the base stations for “distributing communication data among the links” at “the corresponding rate” which has been determined based upon “the communication quality.”

In sharp contrast, the Wan et al. reference in FIGURE 4 discloses “a base station” and not “a base station controller.” Although the Wan et al. reference discloses a channel quality estimator for evaluating the quality of the communication link, the communication as disclosed in the cited reference is only a single link between a mobile terminal and a base station. Similarly, the processing control circuitry is also for a single link. The cited reference fails to anticipate “a radio resource controller” that maintains “a plurality of links.” Let alone, the Wan et al. reference fails to disclose “a data distributor” for “distributing communication data among the links” at “the corresponding data rate,” which has been determined by “a link data rate controller ... based upon the communication quality.” For the lack of disclosure for the above patentable features, the Wan et al. reference fails to anticipate independent claims 1, 9, 13 and 21. Thus, the Applicant respectfully submits to the Examiner that the rejections of claims 1, 9, 13 and 21 under 35 U.S.C. §102(e) should be withdrawn.

For the rejection of independent claims 12 and 24, the Examiner has pointed out that the Li reference discloses “a receiver” at lines 35-42, column 8 and by FIGURE 1, “a

sub frame generator” at lines 46-53, column 9 and by the element 50 in FIGURE 3 and “a transmitter” at lines 35-42, column 8 and by FIGURE 1. The above characterization appears to be improper for anticipation for the following reasons.

Newly amended independent claims 12 and 24 now explicitly recite the patentable features of the current invention. Newly amended independent claims 12 explicitly recites “a plurality of receivers for simultaneously receiving sub frame information from the base stations... indicative of dividing frames of transmission data and data rates.” Newly amended independent claim 12 also explicitly recites “a plurality of transmitters ... for simultaneously transmitting the sub frames of the transmission data at the data rates.” As explicitly recited in newly amended independent claim 24, the method includes a step of “simultaneously receiving a plurality of sets of sub frame information at a mobile station from the base stations... indicative of dividing frames of transmission data and data rates.” Newly amended independent claim 24 also explicitly recites “simultaneously transmitting from the mobile station a plurality of sets of the sub frames of the transmission data at the data rates.”

The above amendments to independent claims 12 and 24 have been supported by the original disclosures of the current application. For example, pages 17 and 18 of the current application describe FIGURES 6 and 7 and support the added patentable features. Thus, now new matter has been introduced by the above claim amendments to independent claims 12 and 24.

In sharp contrast, the Li reference discloses a synchronous fixed frame boundary system with variable data rates. In other words, in a single communication link, each transmission frame includes a data rate of a subsequent frame in order to facilitate the process after reception. The Li reference discloses that sub frames are sequentially transmitted to the identical base station over the single communication link. The Li reference fails to anticipate “a plurality of receivers” and “a plurality of transmitters” in a

single mobile station for “simultaneously receiving” and “simultaneously transmitting” the data as explicitly recited in newly amended independent claims 12 and 24. For the lack of disclosure for the above patentable features, the Li reference fails to anticipate newly amended independent claims 12 and 24. Thus, the Applicant respectfully submits to the Examiner that the rejections of claims 12 and 24 under 35 U.S.C. §102(e) should be withdrawn.

The Section 103 Rejections

The Examiner has rejected claims 2 through 8, 10, 11, 14 through 20, 22 and 23 under 35 U.S.C. §103 as being obvious over the Wan et al. reference in view of the Huang et al. Claims 2 through 8, 10, 11, 14 through 20, 22 and 23 ultimately depend from independent claim 1, 9, 12, 13, 21 or 24 and incorporate the above described patentable features of the current invention.

As discussed above with respect to the section 102 rejections, the Wan et al. reference fails to anticipate the maintenance of “a plurality of links” between the mobile station and each of the base stations for “distributing communication data among the links” at “the corresponding rate” which has been determined based upon “the communication quality” as explicitly recited in independent claims 1, 9, 13 and 21. Similarly, the Wan et al. reference also fails to anticipate “a plurality of receivers” and “a plurality of transmitters” in a single mobile station for “simultaneously receiving” and “simultaneously transmitting” the data as explicitly recited in newly amended independent claims 12 and 24. Furthermore, the Wan et al. reference lacks any disclosures for teaching, disclosing or suggesting the above quoted patentable features since the disclosures in the Wan et al. reference is limited to a single link data communication between a given mobile station and a base station.

The Huang et al. reference discloses a mobile station with a 3GDS-CDMA communication system, in which a separate active set is defined for each of the different channel types. The system allows flexible handoffs since each type of channel is separately handing off with the surrounding base stations. Although the Huang et al. reference discloses that a common channel such as FCH and DCCH may be shared between the mobile station and two base stations, there is no disclosure or suggestion on “a plurality of links” between the mobile station and each of the base stations for “distributing communication data among the links” at “the corresponding rate” which has been determined based upon “the communication quality” as explicitly recited in independent claims 1, 9, 13 and 21. Similarly, the Huang et al. reference also fails disclose, teach or suggest multiple communication links between a single mobile station and multiple base stations on separate communication links through “a plurality of receivers” and “a plurality of transmitters” in the mobile station as explicitly recited in newly amended independent claims 12 and 24.

For the above discussed reasons, the combined disclosures of the cited references still fail to teach, disclose and suggest the patentable features as explicitly recited in any one of the independent claims of the current application. Thus, it would not have been obvious to one of ordinary skill in the art to provide the patentable features of the current invention based upon the cited references alone or in combination. Due to the dependency of claims 2 through 8, 10, 11, 14 through 20, 22 and 23, these dependent claims incorporate the above discussed patentable features. Therefore, the Applicant respectfully submits to the Examiner that the rejections of claims 2 through 8, 10, 11, 14 through 20, 22 and 23 under 35 U.S.C. §103 should be withdrawn.

CONCLUSION

In view of the above amendments and the foregoing remarks, Applicant respectfully submits that all of the pending claims are in condition for allowance and respectfully request a favorable Office Action so indicating.

Respectfully submitted,



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